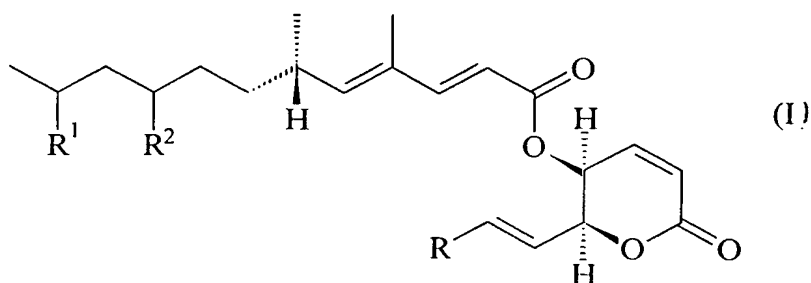


CLAIMS

1. A 5,6-dihydro- α -pyrone of formula (I)

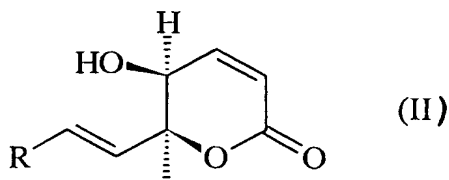


wherein R is CO₂H or CH₃ and each of R¹ and R² is H; or R is CO₂H, one of R¹ and R² is H and the other is OH; or, when R is CO₂H, a pharmaceutically or veterinarily acceptable salt thereof.

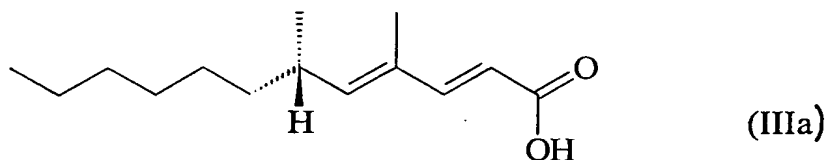
2. A process for the preparation of a 5,6-dihydro- α -pyrone of formula (I) as defined in claim 1 or a pharmaceutically or veterinarily acceptable salt thereof, which process comprises:

- (i) fermenting, in a source of carbon, nitrogen and inorganic salts, fungal strain *Phomopsis* sp. 22502 (CBS 313.96) or a mutant thereof which produces a said 5,6-dihydro- α -pyrone;
- (ii) isolating a said 5,6-dihydro- α -pyrone from the fermentation broth; and
- (iii) if desired when the isolated said 5,6-dihydro- α -pyrone is the compound of formula (I) wherein R is CO₂H, converting the said 5,6-dihydro- α -pyrone into a pharmaceutically or veterinarily acceptable salt thereof.

3. A process for the preparation of a 5,6-dihydro- α -pyrone of formula (I), as defined in claim 1, wherein R is CH₃, which process comprises esterifying the phomalactone of formula (II):



10 with a fatty acid of formula (IIIa):



4. A pharmaceutical or veterinary composition
20 comprising a pharmaceutically or veterinarily acceptable carrier or diluent and, as active ingredient, a compound as claimed in claim 1.

5. A compound according to claim 1 for use in a method of treatment of the human or animal body by therapy.

25 6. A compound according to claim 5 for use as a cytokine production inhibitor.

7. A compound according to claim 6 for use as an IL-1 production inhibitor.

8. A compound according to claim 6 for use in the

treatment of an immunoinflammatory condition.

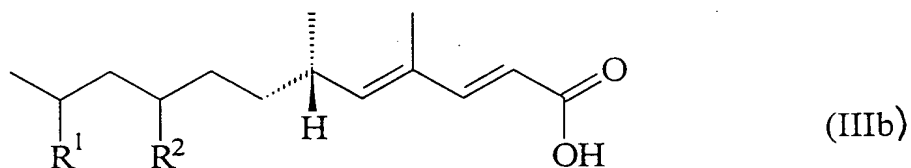
9. A compound according to claim 8 for use in the treatment of rheumatoid arthritis, osteoarthritis, septic shock, psoriasis, atherosclerosis, inflammatory bowel disease, 5 Crohn's disease or asthma.

10. A compound according to claim 6 for use in the treatment of a central nervous system disorder.

11. A process for the preparation of the phomalactone of formula (II) defined in claim 3, which process comprises:

- 10 (i) fermenting, in a source of carbon, nitrogen and inorganic salts, fungal strain *Paecilomyces* sp. 3527 (CBS 314.96) or a mutant thereof which produces the said phomalactone; and
15 (ii) isolating the said phomalactone from the fermentation broth.

12. A fatty acid of formula (IIIb):



wherein one of R^1 and R^2 is H and the other is ~~H or~~ OH. X

25 13. A process for the preparation of a fatty acid of formula (III):

treatment of an immunoinflammatory condition.

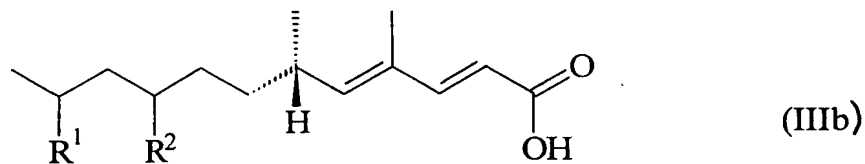
9. A compound according to claim 8 for use in the treatment of rheumatoid arthritis, osteoarthritis, septic shock, psoriasis, atherosclerosis, inflammatory bowel disease, Crohn's disease or asthma.

10. A compound according to claim 6 for use in the treatment of a central nervous system disorder.

11. A process for the preparation of the phomalactone of formula (II) defined in claim 3, which process comprises:

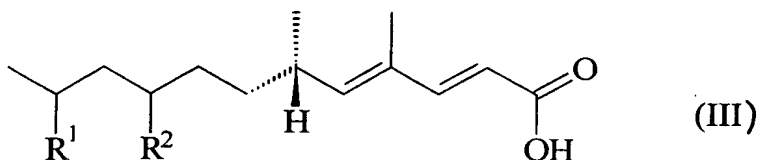
- 10 (i) fermenting, in a source of carbon, nitrogen and inorganic salts, fungal strain *Paecilomyces* sp. 3527 (CBS 314.96) or a mutant thereof which produces the said phomalactone; and
- (ii) isolating the said phomalactone from the fermentation broth.

12. A fatty acid of formula (IIIb):



wherein one of R^1 and R^2 is H and the other is H or OH.

13. A process for the preparation of a fatty acid of formula (III):



5

wherein one of R^1 and R^2 is H and the other is H or OH.

which process comprises:

- (i) fermenting, in a source of carbon, nitrogen and inorganic salts, fungal strain *Phomopsis* sp. 22502 (CBS 313.96) or a mutant thereof which produces the said fatty acid; and
- (ii) isolating the said fatty acid from the fermentation broth.

10

14. A biologically pure culture of fungal strain *Phomopsis* sp. 22502 (CBS 313.96) or a mutant thereof which produces a 5,6-dihydro- α -pyrone of formula (I) as defined in claim 1 ~~or a fatty acid of formula (III) as defined in claim~~

15

15. A biologically pure culture of fungal strain *Paecilomyces* sp. 3527 (CBS 314.96) or a mutant thereof which produces a phomalactone as defined in claim 3.

20

16. A process for fermenting fungal strain *Phomopsis* sp. 22502 (CBS 313.96) or a mutant thereof as defined in claim 13, which process comprises fermenting strain *Phomopsis* sp. 22502 (CBS 313.96) or a said mutant thereof in a source of carbon, nitrogen and inorganic salts.

25

17. A process for fermenting fungal strain *Paecilomyces* sp. 3527 (CBS 314.96) or a mutant thereof as defined in claim 14, which process comprises fermenting strain *Paecilomyces* sp.

